

WHAT IS CLAIMED IS:

1. A probe for measuring tread depth, said probe comprising:
a housing having a window formed therein, said housing having a proximal end and
a distal end;

5 range finding means carried within said housing and oriented so that said range
finder directs a beam of light through said window;

means for moving said range finding means parallel to said window;

→ means carried by said housing for gripping said housing;

tire-engaging means carried by said proximal end for engaging a side of a tire; and

10 means carried by said housing and in operational connection with said range finding
means and said moving means for sending distance data from said (laser range finding means)
as said laser range finding means is moved parallel to said window.

2. The probe as recited in claim 1, wherein said housing has an concave arcuate
edge formed at both said proximal end and said distal end to provide support for a tire.

15 3. The probe as recited in claim 1, further comprising a communications port means
carried by said gripping means for communicating distance data to a computer.

4. The probe as recited in claim 3, wherein said communications port means
transmits distance data using an infrared transmission.

5. The probe as recited in claim 3, wherein said communications port means
20 transmits measurement data using a radio frequency transmission.

6. The probe as recited in claim 1, wherein said gripping means is a handle carried
by said proximal end of said housing.

7. The probe as recited in claim 3, further comprising a handheld computer, said
handheld computer in electrical communication with said range finding means, said handheld
25 computer having a display and means for plotting distance data.

8. A probe for measuring tread depth, said probe comprising:
a housing having a window formed therein, said housing having a proximal end and
a distal end;

30 range finding means carried within said housing and oriented so that said range
finder directs a beam of light through said window;

means for moving said range finding means parallel to said window;

a handle carried by said proximal end of said housing; and
means carried by said housing and in operational connection with said range finding
means and said moving means for sending distance data from said laser range finding means
as said laser range finding means is moved parallel to said window.; and
5 communications port means carried by said handle for communicating distance data
to a computer.

9. The probe as recited in claim 8, wherein said communications port means
transmits measurement data using an infrared transmission.

10. The probe as recited in claim 8, wherein said communications port means
transmits measurement data using radio frequency transmission.

11. The probe as recited in claim 8, further comprising tire-engaging means carried
by said proximal end for engaging a side of a tire.

12. The probe as recited in claim 8, wherein said window is positioned in contact
with the tread of a tire.

15. The probe as recited in claim 8, further comprising a handheld computer, said
handheld computer in electrical communication with said range finding means, said handheld
computer having a display and means for plotting distance data.

14. The probe as recited in claim 8, wherein said gripping means is a handle carried
by said proximal end of said housing.

20 *Step 1* 15. A method for measuring the tread profile of a tire, said method comprising the
steps of:

scanning the rolling face of a tire to determine the tread profile;
communicating said tread profile to a computer having a display;
plotting the tread profile on said display;

25 16. The method as recited in claim 15, wherein said scanning step and
communicating step is performed by a probe having a handle, said handle having a
communications port that communicates said tread profile to said computer.

Step 2 17. The method as recited in claim 15, wherein said tread profile is communicated
to said computer using a transmission selected from the group consisting of infrared and
30 radio frequency.

18. The method as recited in claim 15, wherein said scanning step is performed by a handheld probe.

19. The method as recited in claim 15, further comprising the step of determining whether the tread profile complies with the minimum allowable tread profile listed in governmental regulations.

5 20. The method as recited in claim 19, further comprising the step of predicting when the tire needs replaced to comply with the minimum allowable tread profile listed in governmental regulations.

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